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EXAMINER	
HSU, AMY R	
ART UNIT	PAPER NUMBER
2609	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/22/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/714,632	FUKUI, TAKAAKI	
	Examiner	Art Unit	
	Amy Hsu	2609	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10/7/2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-37* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11/18/2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *2/27/04 and 10/7/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 35-37 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The described program for an image pickup apparatus in claims 35-37 do not qualify under a statutory category of patent eligible subject matter. For example, claim 35 is directed to a program for an image pickup apparatus, and fails to claim the program recorded on an appropriate computer readable medium so as to be structurally and functionally interrelated to the medium and permit the function of the claimed invention to be realized. The same rationale applies to claims 36-37.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-4, 16,19-21, 29-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Oeda et al. (US 7,136,103).

Regarding claim 1, Oeda teaches an image pickup apparatus comprising: an imaging element which converts received light from an object into an image signal (an inherent basic function of an image pickup apparatus); a signal processing circuit which processes the image signal (*Fig. 2 and Col 4, Lines 60*); a display device that displays a multi-dimensional hue chart (*a chart consisting of a color row and corresponding rows for respective hue and chroma values is described in Col 10, Lines 11-12 and Col 10 Lines 19-24*); and a user interface that inputs user desired settings for image processing of the image signal using the display device while displaying said multi-dimensional hue chart (Fig 15 illustrates a user interface displayed while displaying multi-dimensional hue chart and Col 10 Lines 31 describes how user can input desired settings).

Regarding claim 2, Oeda teaches the image pickup apparatus according to Claim 1, wherein the display device displays said multi-dimensional hue chart together with an image displayed on the basis of image signal (*Fig 14 and description in Col, Lines 13-19 disclose a display with multi-dimensional hue chart together with an image*).

Regarding claim 3, Oeda teaches the image pickup apparatus according to Claim 1, wherein the display device switches the display screen between the image displayed on the basis of the image signal from the imaging element and said multi-dimensional hue chart in accordance with operation of the user interface (*Col 8, Lines 66-67 through Col 9 Lines 1-4 discloses that when the display is in a state displaying an image, the user can choose to select a setting change mode which will display the multi-dimensional hue chart*).

Regarding Claim 4, Oeda teaches the image pickup apparatus according to claim 1, wherein the display device displays an image of the object to be captured and superimposes said multi-dimensional hue chart on an image of the object to be captured (*Fig 14 and description in Col, Lines 13-19 disclose a display with image superimposed over multi-dimensional hue chart*).

Regarding Claim 16, Oeda teaches an image pickup apparatus comprising: an imaging element which converts light received from an object into an image signal (*a basic inherent function of a digital camera such as described by Oeda*); a signal processing circuit which processes the image signal (*Fig. 2 and Col 4 Lines 60-61 describe a signal processing circuit)*; a display device that displays a multi-dimensional hue chart (Fig.1 reference number 30 is a display device and *Col 10, Lines 11-12 and 19-23 describe the display of chart with a dimension for different colors, and dimensions for corresponding hue and chroma values. This multi-dimensional hue chart is displayed on the display device)*; and an operation setting device that enters user desired operation settings for the image pickup apparatus (*Col 8, Lines 66-67*), wherein the color distribution of the image signal processed by the signal processing circuit on the basis of the operation settings input from the operation setting device is displayed on said multi-dimensional hue chart (Fig. 15 shows how color distribution in the form of hue and chroma corresponding to certain colors of the image signal on the basis of user input is displayed on the multi-dimensional hue chart).

Regarding Claim 19, Oeda teaches the image pickup apparatus according to claim 16, wherein the display device displays said multi-dimensional hue chart together

with an image displayed on the basis of the image signal (*Fig 14 shows a multi-dimensional hue chart displayed together with an image*).

Regarding Claim 20, Oeda teaches the image pickup apparatus according to claim 16, wherein the display device switches the display screen between an image displayed on the basis of the image signal from the imaging element and said multi-dimensional hue chart in accordance with operation of the user interface (*Col 8, Lines 66-67 through Col 9 Lines 1-4 discloses that when the display is in a state displaying an image, the user can choose to select a setting change mode which will display the multi-dimensional hue chart*).

Regarding Claim 21, Oeda teaches the image pickup apparatus according to claim 16, wherein the display device superimposes said multi-dimensional hue chart on an image to be captured (*Fig 14 illustrates a multi-dimensional hue chart superimposed on an image of buildings*).

Regarding Claim 29, Oeda teaches an image pickup method comprising: converting light received by an imaging element from an object into an image signal; (*a basic inherent function of a digital camera such as described by Oeda*) processing the image signal (*Fig. 2 and Col 4 Lines 60-61 describe a signal processing circuit*); displaying a multi-dimensional hue chart (*Col 10, Lines 11-12 and 19-23 describe the display of chart with a dimension for different colors, and dimensions for corresponding hue and chroma values*); and inputting user desired settings for image processing of the image signal in the signal processing step, on the basis of said multi-dimensional hue chart displayed in said display step (*Fig 1. illustrates the user selected setting*

change in Fig. 1 reference number 44 as an input to the CPU which affects the signal process in reference number 22. The setting change is inputted by the user via the multi-dimensional hue chart display as described in Col 8 Lines 66-67 through Col 9 Lines 1-4).

Regarding Claim 30, Oeda teaches a display method for an image pickup apparatus, comprising: converting light received by an imaging element from an object into an image signal (*a basic inherent function of a digital camera such as the invention described by Oeda)*; processing the image signal (*Fig. 2 and Col 4 Lines 60-61 describe a signal processing circuit*); displaying an image on the basis of the image signal processed in the signal processing step (illustrated by the flow of reference number 22, the signal processor, through reference number 30, the monitor in *Fig 1).*; displaying a multi-dimensional hue chart (*Col 10, Lines 11-12 and 19-23 describe the display of chart with a dimension for different colors, and dimensions for corresponding hue and chroma values*), inputting user desired operational settings for operating the image pickup apparatus (*Col 8 Lines 66-67 through Col 9 Lines 1-4*); and displaying an image having the color distribution of the image signal subjected to the signal processing in the signal processing step on said multi-dimensional hue chart in accordance with the operational settings (*illustrated in Fig 1. by reference number 44 where the user selects changes and following the flow through the CPU, Signal processing, video encoder, and finally being displayed in reference number 30, the monitor. See also Col 1, Lines 57-59*).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 5-18 are rejected under 35 U.S.C. 103(a) as being obvious over Oeda (U.S 7,136,103), and further in view of Ikeda (U.S 6,788,339).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Regarding Claim 5, Oeda teaches the image pickup apparatus according to claim 1, and also teaches a white balancing device that performs white balancing on the image signal (Fig. 2 Reference number 22b). Oeda fails to teach the user interface setting an achromatic color determining range for the white balancing in said multi-dimensional hue chart. However, Ikeda teaches the user interface setting a white determining range by directly setting a flash or aperture setting which determines the white or achromatic color determining range (Col 12 Lines 29-45 and Lines 41-47), Then performs white balancing on the basis of the achromatic color determining range set by the user interface (Col 2 Lines 41-47). It would have been obvious at the time the invention was made to one of ordinary skill in the art to apply the white balancing technique based on an achromatic color determining range that is a result of settings from the user interface with the limitations of Claim 1 to enable the user interface to directly control the parameters of the white determining range.

Regarding Claim 6, Ikeda teaches the image pickup apparatus according to claim 5, wherein said multi-dimensional hue chart has color temperatures indicated on one coordinate axis and an other characteristic which is different from the color temperatures indicated on the other coordinate axis (Fig. 3 shows a multi-dimensional hue chart with color temperatures indicated on one axis)..

Regarding Claim 7, Ikeda teaches the image pickup apparatus according to claim 5, wherein said multi-dimensional hue chart includes a coordinate axis of hues that extends in the directions of green and magenta (Fig. 3 illustrates the multi-dimensional hue chart with labeled temperature and color axis), and a coordinate axis of color

temperatures (Fig 3) that is a black radiation axis or an achromatic axis equivalent thereto.

Regarding Claim 8, Ikeda teaches the image pickup apparatus according to claim 5, wherein the user interface sets the breadth of the achromatic color determining range along a color temperature axis (Fig 9 shows the outlined white determining range along the labeled color temperature axis).

Regarding Claim 9, Ikeda teaches the image pickup apparatus according to claim 5, wherein the user interface sets the breadth of the achromatic color determining range along a hue axis (Col 10 Lines 56-60 describe the ability to manually change the shape of the achromatic color determining range, and Fig. 9(a)-(d) illustrates said range can be along a hue axis, labeled as (Ma-G)/Y).

Regarding Claim 10, Ikeda teaches the image pickup apparatus according to claim 5, wherein the user interface arbitrarily sets an upper limit and/or a lower limit of the achromatic color determining range (Col 12 Lines 41-47 describes how setting a parameter on the user interface such as shutter time will set the white determining range, with the upper and/or lower limit being set arbitrarily).

Regarding Claim 11, Ikeda teaches the image pickup apparatus according to claim 5, wherein the user interface sets the achromatic color determining range by the coordinates on said multi-dimensional hue chart. Ikeda teaches a color-temperature varying range of white color in Fig. 11, which is where the white determining range is set (Col 2, Lines 30-32). Fig. 9 and 11 show the coordinates of the multi-dimensional hue chart. However, Ikeda does not specifically teach that the white determining range

is set by the coordinates. It would have been obvious at the time the invention was made to one of ordinary skill in the art to set the white determining range disclosed by Ikeda by the coordinates, where said coordinates of the white range chart are also disclosed by Ikeda.

Regarding Claim 12, Ikeda teaches the image pickup apparatus according to claim 5, wherein the user interface sets the achromatic color determining range by changing the shape of a closed region on said multi-dimensional hue chart, the closed region representing the achromatic color determining range. Ikeda teaches this in Col 12 Lines 41-47. The user interface sets the white determining range by setting the aperture or shutter time which corresponds to a certain shape of a closed region which represents the white determining range on a multi-dimensional hue chart shown in Fig 9. Col 12 Lines 41-47 describes how setting different settings such as shutter time will correspond to setting the white determining range. Fig. 9 shows different shapes of white determining areas, based on different settings that can be set via the user interface.

Regarding Claim 13, Ikeda teaches the image pickup apparatus according to claim 7, wherein the user interface sets the achromatic color determining range by changing the position of the closed region on said multi-dimensional hue chart. . Ikeda teaches this in Col 12 Lines 41-47. The user interface sets the white determining range by setting the aperture or shutter time which corresponds to a certain position of a closed region which represents the white determining range on a multi-dimensional hue chart shown in Fig 9. Col 12 Lines 41-47 describes how setting different settings

such as shutter time will correspond to setting the white determining range, for example setting a long shutter time will move the position of the white determining range out of the high color temperature side. Fig. 9 shows different positions of white determining areas, based on different settings that can be set via the user interface.

Regarding Claim 14, Ikeda teaches the image pickup apparatus according to claim 7, wherein the achromatic color determining range settable by the user interface varies according to the conditions under which an image of the object is captured (Col 12 Lines 41-47 describes how the white determining range varies according to the shooting condition, such as indoor shooting.

Regarding Claim 15, Ikeda teaches the image pickup apparatus according to claim 7, wherein the achromatic color determining range settable by the user interface is limited to a higher color temperature side and/or a lower color temperature side according to the brightness of an object (Col 12 Lines 29-37 describe how the effect of a flash light on the object of shooting will determine the white determining area which corresponds to the color temperature of the flash light).

Regarding Claim 16, Ikeda teaches an image pickup apparatus comprising: an imaging element which converts light received from an object into an image signal (an inherent function of a conventional digital camera such as the one described by Ikeda); a signal processing circuit which processes the image signal (*Col 15, Line 39-40*). Ikeda also teaches a multi-dimensional hue chart where operation settings that are input (such as setting flash or shutter time as described in Col 12 Lines 29-34 and Lines 41-47) will affect the color distribution, or white determining range, as seen in Fig

11. Ikeda fails to teach specifically that the multi-dimensional chart showing color distribution is displayed on a display device. However, Ikeda describes how the arrangement of the white determining range, or color distribution arrangement may be changed manually. It would have been obvious at the time the invention was made to one of ordinary skill in the art to realize that given the known method of allowing the color distribution on the multi-dimensional hue chart to be manually changed, this could be done via a display device.

Regarding Claim 17, Ikeda teaches the image pickup apparatus according to claim 16, wherein said multi-dimensional hue chart has color temperatures indicated on one coordinate axis and an other characteristic which is different from the color temperatures indicated on the other coordinate axis (Fig. 3 clearly shows a multi-dimensional hue chart with color temperatures indicated on one axis).

Regarding Claim 18, Ikeda teaches the image pickup apparatus according to claim 17, wherein said multi-dimensional hue chart includes a coordinate axis of hues extending in the directions of green and magenta (Fig. 3 clearly illustrates the multi-dimensional hue chart with labeled axis), and a coordinate axis of color temperatures (Fig. 3) that is a black radiation axis or an achromatic axis equivalent thereto.

6. Claims 32-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oeda (U.S 7,136,103).

Regarding Claims 32 and 35, it would have been obvious at the time the invention was made to one of ordinary skill in the pertinent art to create a program or a

computer readable recording medium in which a display program is recorded which executes the display method according to Claim 29, which is fully anticipated by Oeda.

Regarding Claims 33 and 36, it would have been obvious at the time the invention was made to one of ordinary skill in the pertinent art to create a program or a computer readable recording medium in which a display program is recorded which executes the display method according to Claim 30, which is fully anticipated by Oeda.

Regarding Claims 34 and 37, it would have been obvious at the time the invention was made to one of ordinary skill in the pertinent art to create a program or a computer readable recording medium in which a display program is recorded which executes the display method according to Claim 31, which is rejected by Ikeda in view of Suga.

7. Claims 22-28,31 are rejected under 35 U.S.C. 103(a) as being obvious over Ikeda (U.S 6,788,339), and further in view of Suga et al. (U.S 6,380,972).

The applied references have a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR

1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Regarding Claim 22, Ikeda teaches an image pickup apparatus comprising: an imaging element that converts light received from an object into an image signal (*a basic inherent function of a image pickup apparatus such as the one described by Ikeda*); and a signal processing circuit that processes the image signal (*Col 15, Line 39-40*). Ikeda also teaches a device that determines achromatic, or white color (*Col 2, Lines 30-32*). The white determining parameters are selected by the user on the setting screen by setting the flash, which will affect the white determining area (*Col 12, Lines 29-24*). The user selects shutter speed or aperture position on the setting screen and thereby changes the parameters of the white determining area (*Col 12, Lines 41-47*). Ikeda also discloses that the device performs white balancing on an image signal using the white determining range, or achromatic color determining parameter (*Col 2, Lines 41-47*). Ikeda fails to teach a display device that displays a setting screen showing tracing levels of white balancing selectable by a user. However, Suga illustrates this well-known method in the art of displaying white balancing parameters set by the user (*Suga Fig. 5*). It would have been obvious at the time the invention was made to one of ordinary skill in the art to combine the well known method of displaying white balancing

parameters, or the device which displays the white balancing parameters, with the device disclosed by Ikeda which allows the user to make selections which affect the achromatic color determining parameters, and the device which performs white balancing based on the set achromatic color determining parameters.

Regarding Claim 23, Ikeda discloses the image pickup apparatus according to claim 22, wherein the tracing level of white balancing corresponds to the breadth of an achromatic color determining range on a multi-dimensional hue chart showing changes in hue (Ikeda illustrates in Fig.9 and Col 10 Lines 56-60 the tracing levels of white balancing and how it corresponds to the white determining range on a multi-dimensional hue chart) .

Regarding Claim 24, Ikeda discloses the image pickup apparatus according to Claim 22, wherein colors correspond to the tracing level. Ikeda teaches that the width of the area of the white determining range can be changed manually (Col 10 Lines 56-57) and that it is possible to select from different white determining areas (Col 11, Liens 4-6). However Ikeda does not teach specifically that the manual selection is done via a display device. It would have been obvious at the time the invention was made to one of ordinary skill in the art to allow the disclosed manual selection to be done through a display device. The display device displaying colors corresponding to traveling levels such as in Fig. 11.

Regarding Claim 25, Ikeda teaches the image pickup apparatus according to claim 22, wherein a user interface arbitrarily sets an upper limit and/or a lower limit of the achromatic color determining range. This is done by the user setting the aperture

position or shutter time via the user interface, which will determine the white determining area. For example if the user sets a long shutter time via the user interface, the white determining area on the high color temperature side is gradually excluded from use (Col 12 Lines 41-47). Therefore changing the settings on the user interface will set the upper and lower limit of the white determining range.

Regarding Claim 26, Ikeda teaches the image pickup apparatus according to claim 22, wherein a user interface sets the achromatic color determining range. Ikeda teaches a color-temperature varying range of white color in Fig. 11, which is where the white determining range is set (Col 2, Lines 30-32). Fig. 9 and 11 show the coordinates of the multi-dimensional hue chart. However, Ikeda does not specifically teach that the white determining range is set by the coordinates. It would have been obvious at the time the invention was made to one of ordinary skill in the art to set the white determining range disclosed by Ikeda by the coordinates, where said coordinates of the white range chart are also disclosed by Ikeda.

Regarding Claim 27, Ikeda teaches the image pickup apparatus according to claim 22, wherein a user interface sets the achromatic color determining range by setting the shape of a closed region on said multi-dimensional hue chart, the closed region representing the achromatic color determining range. Ikeda teaches this in Col 12 Lines 41-47. The user interface sets the white determining range by setting the aperture or shutter time which corresponds to a certain shape of a closed region which represents the white determining range on a multi-dimensional hue chart shown in Fig 9. Col 12 Lines 41-47 describes how setting different settings such as shutter time will

correspond to setting the white determining range. Fig. 9 shows different shapes of white determining areas, based on different settings that can be set via the user interface.

Regarding Claim 28, Ikeda teaches the image pickup apparatus according to claim 22, wherein a user interface sets the achromatic color determining range by setting the position of a closed region on said multi-dimensional hue chart, the closed region representing the achromatic color determining range. Ikeda teaches this in Col 12 Lines 41-47. The user interface sets the white determining range by setting the aperture or shutter time which corresponds to a certain position of a closed region which represents the white determining range on a multi-dimensional hue chart shown in Fig 9. Col 12 Lines 41-47 describes how setting different settings such as shutter time will correspond to setting the white determining range, for example setting a long shutter time will move the position of the white determining range out of the high color temperature side. Fig. 9 shows different positions of white determining areas, based on different settings that can be set via the user interface.

Regarding Claim 31, Ikeda discloses an image pickup method comprising: converting light received by an imaging element from an object into an image signal (*a basic inherent function of a image pickup apparatus such as the one described by Ikeda*); processing the image signal (*Col 15, Line 39-40 describes an image signal processor*); selecting achromatic color determining parameters for the tracing level arbitrarily set by a user on the setting screen (*Col 2, Lines 30-32*). The white determining parameters are selected by the user on the setting screen by setting the

flash or aperture settings, which will affect the white determining area (*Col 12, Lines 29-24 and Col 12, Lines 41-47*). and performing white balancing on the image signal using the achromatic color determining parameters set in the setting step (*Col 2, Lines 41-47*). Ikeda fails to teach displaying a setting screen that shows tracing levels of white balancing. However, it is well known in the art to display on a setting screen the tracing levels of white balancing as illustrated by Suga (Suga Fig. 5). It would have been obvious at the time the invention was made to one of ordinary skill in the art to combine the well known method of displaying white balancing parameters, or the device which displays the white balancing parameters, with the device disclosed by Ikeda which allows the user to make selections which affect the achromatic color determining parameters, and the device which performs white balancing based on the set achromatic color determining parameters.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure, including Shiraiwa et al. (U.S 7,098,944), and Takeshita (U.S 7,084,907).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amy Hsu whose telephone number is 571-270-3012. The examiner can normally be reached on M-F 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Amy Hsu
Examiner
Art Unit 2622

RICKY Q. NGO
SUPERVISORY PATENT EXAMINER
2/26/07